

--	--	--	--	--	--	--	--	--	--

**Seventh Semester B.E. Degree Examination, Jan./Feb. 2021**  
**Testing and Commissioning of Electrical Equipment**

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting at least TWO full questions from each part.

**PART – A**

- 1 a. What are the standard specifications of power transformers? (08 Marks)  
 b. With neat sketch, explain the typical rating and terminal plate of transformer. (08 Marks)  
 c. What are the qualities of a good insulating oil? (04 Marks)
- 2 a. Why drying of transformer is necessary? Explain the different methods of drying. (10 Marks)  
 b. Describe the test setup for impulse testing of transformers. (10 Marks)
- 3 a. Describe the procedure of slip test and calculation of  $X_q$  and  $X_d$  from the same. (10 Marks)  
 b. Mention the specification of synchronous generator. (10 Marks)
- 4 a. Explain the principle of brushless excitation system. (07 Marks)  
 b. Describe the different methods of measuring DC winding resistance of synchronous machine. (07 Marks)  
 c. Describe the methods of cooling employed in synchronous machines. (06 Marks)

**PART – B**

- 5 a. What are the standard specifications of Induction Motors? (07 Marks)  
 b. Write a brief note on shaft alignment of Induction motors. (07 Marks)  
 c. What are the different methods of drying out of an Induction Motor? Explain in brief. (06 Marks)
- 6 a. Explain how static and dynamic balancing of rotor of Induction motor is done. (10 Marks)  
 b. Explain the high voltage test conducted on the Induction motors. (10 Marks)
- 7 a. Explain briefly the methods of measuring temperature rise in an induction motor. (10 Marks)  
 b. Describe a typical preventive maintenance schedule of induction motors. (10 Marks)
- 8 a. Explain the layout of a simple short circuit testing station and the procedure of conducting short circuit test on circuit breaker. (10 Marks)  
 b. Explain the various steps in maintenance of circuit breaker. (10 Marks)

\* \* \* \* \*